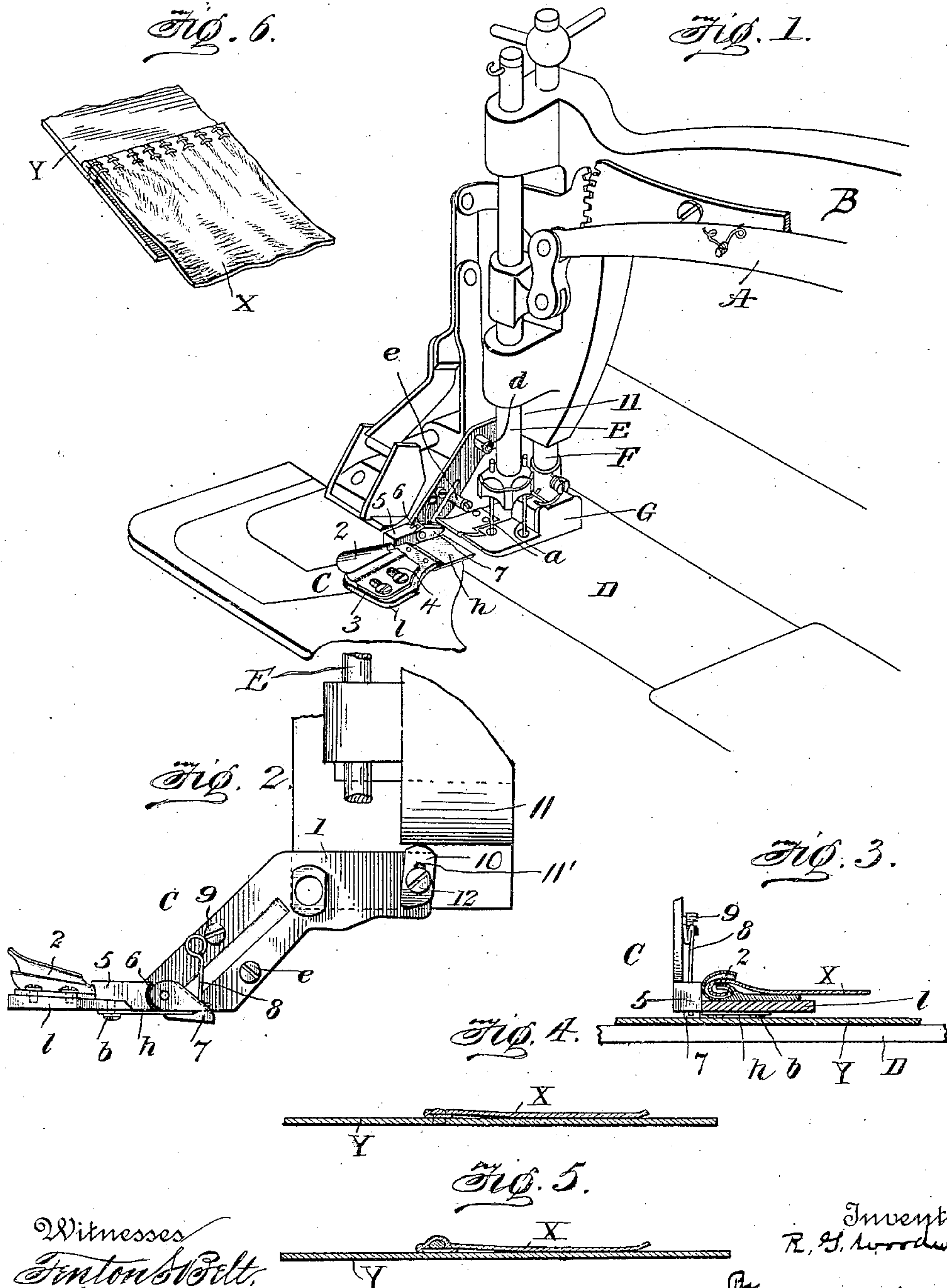


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R. G. WOODWARD.
STRIPPER BLADE SUPPORT AND GUIDE FOR RUFFLING MACHINES.

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Witnesses
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UNITED STATES PATENT OFFICE.

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STRIPPER-BLADE SUPPORT AND GUIDE FOR RUFFLING-MACHINES.

No. 875,639.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed April 17, 1902. Serial No. 103,324.

To all whom it may concern:

Be it known that I, RUSSEL G. WOODWARD, a citizen of the United States, residing at Waukegan, in the county of Lake, State of Illinois, have invented certain new and useful Improvements in Stripper-Blade Supports and Guides for Ruffling-Machines, of which the following is a description, reference being had to the accompanying drawing and to the letters and figures of reference marked thereon.

My invention relates to an improvement in sewing machines, and especially to sewing and ruffling machines of the type illustrated in my Patent No. 655,143, dated July 31st, 1900.

To a certain extent, the present invention is an improvement upon my Patent No. 690,812, of January 7th, 1902, granted for an improvement in stripper plates for sewing machines, embodying certain improvements upon the mechanism therein shown, and also certain additional features.

There are many adaptations of the machine shown in my original patent 655,143, it being adapted according to the different arrangements and construction of folding guides, and other attachments for use in the making of shirts, skirts, shirtwaists, and various other garments, but the particular object of the present invention is to provide an attachment which shall, in a manner somewhat similar to that of Patent 690,812, support the stripper blade by pivoting it from above the work plate, so that portion of the goods not ruffled may be passed beneath the presser foot, without being liable to be caught on the stripper blade, but the invention includes in addition to this feature, an adjustment for the stripper blade support, whereby said blade may be adjusted up and down, or set in accordance with the thickness of the fabric which is to be sewed. I have also varied the construction of the stripper blade support to a considerable extent, whereby it is adapted to carry on its upper surface an adjustable folder for folding and guiding the piece of goods to be ruffled, and at the same time it is adapted to support a hinged foot or guide, which normally extends below and to one side the stripper plate to bear directly upon the body of the goods passing under the stripper blade, and at the same time acting as a guide for the edge of

the ruffle as it passes toward the presser foot, thus preventing the ruffle from passing beyond the proper line which it should describe in its course.

As shown in both said patents above referred to, the body portion of the goods which is to be ruffled, is shown as arranged to the left and fed to the needle from that side the general line of feed, while the piece or pieces of fabric to be attached to said body portion are applied from the right hand side of the machine. In the present construction, however, which is designed particularly for use in the ruffling of skirts, the body portion which is not to be ruffled, is applied from the left, while the ruffle to be sewed on to the skirt, is applied from the right and beneath the goose neck of the machine, and is folded and guided by the folding and guiding attachment applied to the base of the stripper blade support.

The invention, therefore, consists in the various matters hereinafter described and referred to in the appended claims.

In the accompanying drawings which illustrate the invention, Figure 1 represents so much of a sewing machine of the type illustrated in Patent 655,143, as is necessary to a complete understanding of my invention; Fig. 2 is a side elevation of the stripper blade support and its various attached parts; Fig. 3 is a sectional view showing the stripper blade partly broken away, and the fabric in cross section; and Figs. 4 and 5 are sectional views of two pieces of fabric sewed on this machine; Fig. 6 is a detail perspective view similar to Figs. 4 and 5.

In these drawings, the needle lever A, goose neck B, ruffling mechanism C; cloth plate D; needle bar E; presser bar F; presser foot G; and needles *a*, are similar to those illustrated in my Patent 655,143, above referred to.

I represents an angular arm, which as shown, near its upper end is provided with a projecting sleeve through which passes a screw *d*, by which said arm is pivotally secured to a part of the machine frame. This arm is thickened at its lower end, and provided with a flat projecting plate 1, to the under side of which is attached by set screws *b*, the stripper blade *h*. Upon the upper face of this base 1, is adjustably attached a folding guide 2, of the usual construction, the ad-

justment of said folding guide upon the plate 1 being accomplished by means of the screws in slots 3 4, respectively.

The base of the angular arm I is thickened, 5 as shown at 5, said thickened portion having a reduced part 6, extending toward its rear, and upon this is pivoted a hinged member or foot 7, to the left of the stripper blade, this member 7 being normally depressed below 10 the level of the stripper blade by the spring 8 attached to the screw 9, on the arm I. A screw or lug *e* is provided on the supporting arm I, just above the presser foot, so that when the presser foot is raised, it comes in 15 contact with the lug or screw *e*, and swings the arm upwardly, thus raising the entire attachment above the work.

The arm I' extends back from its pivotal support *d* underneath the head of the machine 20 and is provided with an adjustable stop 10, which bears against the under side of the head of the machine 11, as clearly shown in Fig. 2. This stop 10 when moved up, throws the front end of the lever up, and thus the 25 stripper plate can be adjusted up and down, in accordance with the thickness of the fabric passing underneath it. This adjustment is accomplished by means of the slot 11' in the piece 10, and the screw 12. By this arrange- 30 ment, the position of the stripper blade when in operative position, is capable of adjustment for varying thicknesses of goods, and may be set to any desired point.

The hinged member or foot 7, to the left of 35 the stripper blade, it will be noticed, bears directly on the goods passing under the stripper blade, and at the same time acts as a guide for the edge of the ruffle as it passes towards the presser foot. This part always 40 bearing upon the work passing underneath the ruffer blade, prevents the ruffle from passing or getting under it.

In operation, supposing a skirt to be ruffled, a portion of which is shown in Fig. 4, the 45 piece of goods X which is to be ruffled and applied to the body of the skirt Y is placed in the folding guide 2, the body portion is placed beneath the presser foot and attachment above described, and the parts are fed 50 to the ruffling and sewing mechanism, the edge of the ruffle being guided by the pivoted member or foot 7. When sewed, the fabric has the appearance shown in Fig. 4. If desired, as shown in Fig. 5, a cord may be in- 55 closed within the hem fold of the piece of goods to be ruffled, for this purpose a suitable cord guiding recess, (which it is not deemed necessary to illustrate) being provided.

60 Various modifications and changes in the construction and the parts of this machine may be provided, without departing from the spirit of the invention, the principal features thereof being the making of the stripper 65 blade support adjustable, in accordance with

the various thicknesses of goods to be sewed on the machine; the provisions of a member or foot for guiding the edge of the ruffle or piece of fabric to be applied to the body portion; and, finally, the construction of the 70 support as a whole, including the folding guide, stripper plate, and various other parts.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

75 1. In combination with the ruffling mechanism of a sewing machine, a stripper blade pivotally attached to the framework of the machine, independent of the cloth plate and ruffling mechanism, and means for adjusting 80 the operative position of the stripper blade for varying thicknesses of goods, substantially as described.

2. In combination with the ruffling mechanism of a sewing machine, a stripper plate 85 pivotally attached to the framework of the machine independent of the cloth plate and ruffling mechanism, means for raising it above said cloth plate, and means for adjusting 90 the operative position of the stripper blade; substantially as described.

3. A sewing machine including in combination a frame, a ruffling mechanism, a presser foot, a stripper blade, means for supporting said stripper blade from the frame 95 and independent of the presser foot, and means for adjusting vertically the position of said stripper blade, whereby said stripper blade may be properly positioned for varying 100 thicknesses of fabric.

4. In combination with the ruffling mechanism of a sewing machine, a stripper blade supported from the framework thereof, and means for adjusting vertically its operative 105 position in accordance with varying thicknesses of fabric, a presser foot and connections between the presser foot and stripper blade support, to permit the latter and the parts carried thereby to be raised as the 110 presser foot is raised; substantially as described.

5. In a sewing machine having a ruffling mechanism an arm pivotally secured to the frame of the machine, a stripper blade supported thereby, and an adjustable stop for 115 varying the operative position of the pivoted arm; substantially as described.

6. In a sewing machine having a ruffling mechanism, an arm pivotally secured to the frame of the machine, a stripper blade supported thereby, and a stop adjustable on the 120 upper end of said arm, and adapted to bear on a portion of the machine frame, whereby the downward movement of the arm may be varied; substantially as described. 125

7. In a sewing and ruffling machine, an arm pivotally supported on the machine frame, a stripper blade, a folder, and an edge guide carried thereby; substantially as de- 130 scribed.

8. In a sewing and ruffling machine, an arm pivotally supported on the machine frame, a stripper blade, a folder and an edge guide carried thereby and means for adjusting said arm; substantially as described.

9. In a sewing and ruffling machine, an arm pivotally supported on the machine frame above the work plate, a stripper blade and folder carried thereby; substantially as described.

10. In a sewing and ruffling machine, an arm pivotally supported on the machine frame above the work plate, a stripper blade and edge guide carried thereby; substantially as described.

11. In a sewing and ruffling machine, an arm pivotally supported on the machine frame above the work plate, a stripper blade, a folder, and an edge guide carried thereby; substantially as described.

12. In a sewing and ruffling machine, an arm pivotally supported on the machine frame above the work plate, a stripper blade and an edge guide carried thereby at one side the stripper blade, and normally depressed below the same; substantially as described.

13. The herein described attachment for sewing and ruffling machines, comprising a supporting arm, a folder, a stripper blade, and an edge guide, all carried by said supporting arm, said edge guide being arranged to guide the edge of the fabric which is folded and ruffled, and adapted to bear on the body of the goods; substantially as described.

14. In a sewing and ruffling machine, in-

cluding a ruffling mechanism, an arm supported on the machine frame above the work plate, and a folder and stripper blade carried thereby arranged in front of said ruffling mechanism; substantially as described.

15. In a sewing and ruffling machine, including a ruffling mechanism, an arm supported on the machine frame above the work plate, and a folder carried thereby, arranged in front of said ruffling mechanism, and a vertical guide carried by said arm located in a plane in rear of the folder, and to one side the ruffling mechanism; substantially as described.

16. In a sewing and ruffling machine, including a ruffling mechanism, a stripper blade support, a folding device carried on the stripper blade support in rear of said stripper blade, and a vertical guide located in a plane in rear of the folder, and to one side the stripper blade; substantially as described.

17. The combination with a ruffling mechanism for sewing machines, a stripper blade, and a ruffling mechanism mounted to operate above the cloth plate of the machine, and means for adjusting the operative position of the stripper blade for varying thicknesses of goods; substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses.

RUSSEL G. WOODWARD.

Witnesses:

CHESTER McNEIL,
EMMA KERN.